Scope Development and Management for FDOT Projects



Robert Quigley, P.E.

State Project Management Engineer

Mary Jane Hayden, P.E., PMP

Project Manager

Agenda

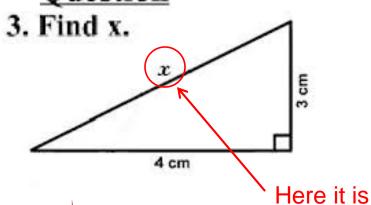
- Scope Development
 - ✓ Purpose of a Scope
 - ✓ Scope of Work vs. Scope of Services
 - ✓ Scope and Staff Hour Development Process
- Scope Management
 - ✓ Roles and Responsibilities
 - ✓ Scope Management & PM Fundamentals
 - ✓ Scope Creep
 - ✓ Scope Change

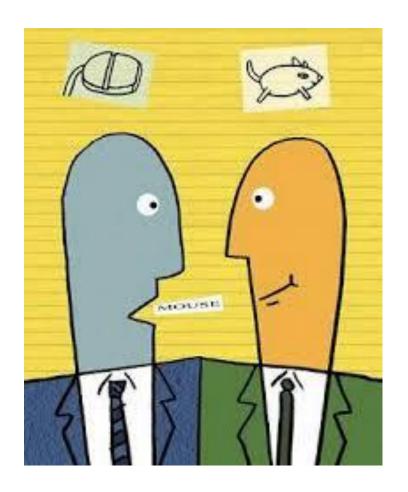


What is the Purpose of a Scope?



Question







- Scope of Work
 Purpose and
 Need:
 - ✓ Widen road
 - Resurfacing
 - ✓ Replace bridge



- Scope of Services How to Accomplish Work:
 - Roadway design
 - ✓ Drainage design
 - ✓ Structures design



PURPOSE

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and the DEPARTMENT in connection with the design and preparation of a complete set of construction contract documents and incidental engineering services, as necessary, for improvements to the transportation facility described herein.

Major work mix includes: **Insert project specific work types**

Major work groups include: [Insert project specific work groups]

Minor work groups include: [Insert project specific minor work groups]

Known alternative construction contracting methods include: [Insert alternative] contracting methods or N/A]

The general objective is for the CONSULTANT to prepare a set of contract documents including plans, specifications, supporting engineering analysis, calculations and other technical documents in accordance with FDOT policy, procedures and requirements. These

Contract documents will be used by the contractor to build the project and test the project components. These Contract documents will be used by the DEPARTMENT or its Construction Engineering Inspection (CEI) representatives for inspection and final acceptance of the project. The CONSULTANT shall follow a systems engineering process to ensure that all required project components are included in the development of the Contract documents and the project can be built as designed and to specifications.

The Scope of Services establishes which items of work in the Plans Preparation Manual and other pertinent manuals are specifically prescribed to accomplish the work included in this contract, and also indicate which items of work will be the responsibility of the CONSULTANT and/or the DEPARTMENT.

Example Scope of Work

- ✓ SR 10 (US 90) over Little River
- ✓ Purpose and Need:
 - Purpose: Replace Bridge along SR 10 (US 90) Over Little River
 - Need: Existing Bridge Structurally Deficient & Overtopping Occurring





Example Scope of Services

2 PROJECT DESCRIPTION

CO DESIGN shall investigate the status of the projects and become familiar with concepts and commitments (typical sections, alignments, etc.) developed from prior studies. CO DESIGN shall use the approved concepts, Preliminary Bridge Investigation Report, as a basis for the design unless otherwise directed by the DISTRICT.

FPID: 422823-1-31-01 - SR 10 (US 90) over Little River Bridge Replacement

The principle intent of this project is to replace the SR 10 (US 90) Bridges (No. 500063 & 500018) over the Little River in Gadsden County, Florida east of Quincy. The existing eastbound bridge (No. 500063) is on a significantly lower profile (1 foot +/- on west end, 4 to 5 feet on east end) grade than the westbound structure (No. 500018). Profile grade changes are anticipated along the eastbound roadway. The roadway approaches should be resurfaced/reconstructed as appropriate with respect to the new bridge low member elevation, but as a minimum to the extent of the new guardrail. The existing roadway capacity (four lanes) shall remain the same for this project. The new structures shall remain on the existing horizontal alignment.

In addition to these two bridges, the existing triple 10'x10' bridge culvert (No. 500019) approximately 1,000 feet east of the Little River will also be evaluated for hydraulic capacity as part of the bridge hydraulics evaluation for the Little River bridges. However, the culvert replacement is NOT included in this project.



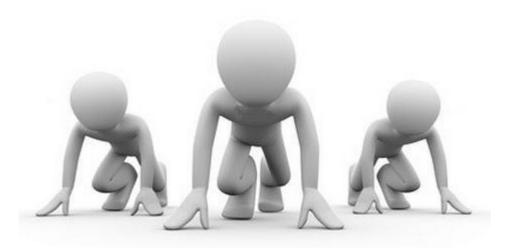
SCOPE DEVELOPMENT



Scope and Staff Hour Development Process

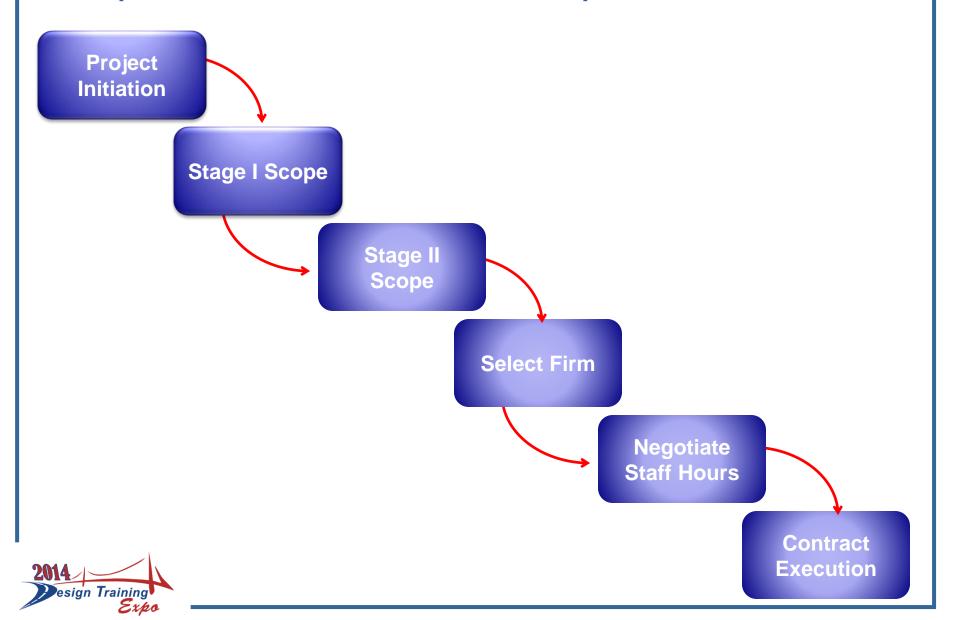
Project Initiation

- Scope of Work Defined
- ✓ Long Range Estimate (LRE)
- ✓ Project Prioritization in Districts
- ✓ Project Programmed





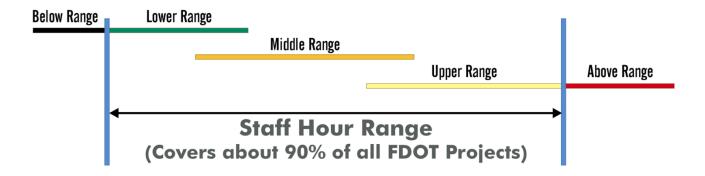
Scope and Staff Hour Development Process



Staff Hours

General Intent (applicable to around 90% of projects)

Philosophy - Ranges not intended to cover all projects.



- Level of Complexity
 - ✓ Project
 - ✓ Activities & Tasks



Staff Hours

- Staff Hour Estimation Do's:
 - ✓ Use the Comments Box
 - ✓ Utilize Formulas



✓ Provide Questions/Comments/Suggestions (maryjane.hayden@dot.state.fl.us)

Two pavement designs (mainline & shoulder): 40 hours for initial setup, 6 hours for shoulder

4.3	Pavement Design Package	LS	1	46	46	Two pavement designs (mainline & shoulder): 40 hours for initial setup, 6 hours for shoulder.
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=40+6



Staff Hours

- Staff Hour Estimation Don'ts:
 - Add new Activities or Tasks
 - ✓ Modify the content (i.e. change existing formulas, units, descriptions)



✓ Double-dip Hours

4.6	Access Management	LS	See Basis for Staff Hour Range	Includes all efforts required to determine location and types of median opening modifications and driveway connection spacing. This also includes any Access Management Report, research for permitted/un-permitted driveways, letters to adjacent property owners, any preparation required for related meetings. (Attendance at meetings is included under Technical Coordination Meetings). (LS based on 4 - 12 hours per undivided roadway mile and 8 - 24 hours per divided roadway mile.)
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4.17	Technical Meetings	LS	Hour Range	Meetings with departmental and/or Agency staff such as meetings with Access Management meetings, pavement design meetings, local governments, etc. Excludes Project Manager hours.
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SCOPE MANAGEMENT



Agenda

- Scope Development
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FDOT & Consultant Project Managers: Roles and Responsibilities

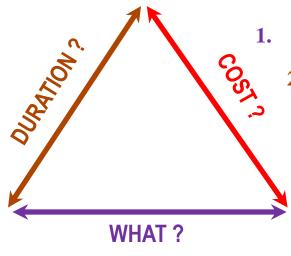
	FDOT PM Must	Consultant PM Must
	Develop the Scope of Services. Coordinate input from support services and the project team.	Make Department aware of any issues that may affect the Scope of Services during development.
	Know and understand the Scope of Services.	Completely understand and fulfill the Scope of Services.
PE	Do not ask for work beyond the Scope of Services.	Not work beyond the Scope of Services.
SCOPE	Be accountable to management for the success of the project.	Be accountable to both FDOT and firm management for the success of the project.
	Approve modifications to the Scope of Services and update the document.	
	Watch for Scope of Work Creep	Watch for Scope of Work Creep
	Watch for Scope of Services Creep	Watch for Scope of Services Creep



Needs & Management Fundamentals

What People Need To Know

Triple Constraints



What are we getting?

2. How long will it take?

3. What's it going to cost?

1. Prioritize

2. Optimize

3. Accept



Scope Creep

- Definitions
 - ✓ FDOT Project Management Handbook:
 - "Work beyond that authorized in the scope is known as "scope creep," and it is unnecessary and expensive"
 - Project Management Body of Knowledge (PMBOK) Guide:
 - "The uncontrolled expansion to product or project scope without adjustments to time, cost, and resources."





Scope Creep

- Common Culprits
 - ✓ Scope Not Well-Defined
 - ✓ Local Agencies
 - ✓ Project Unknowns
 - ✓ Late Phase Review Comments





Scope Creep

- Ways to Avoid
 - ✓ Better Scope Development
 - ✓ Engage Locals Early
 - ✓ Risk Management

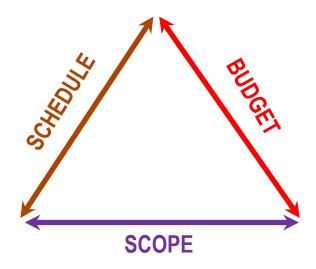
✓ Provide Review Comments Early





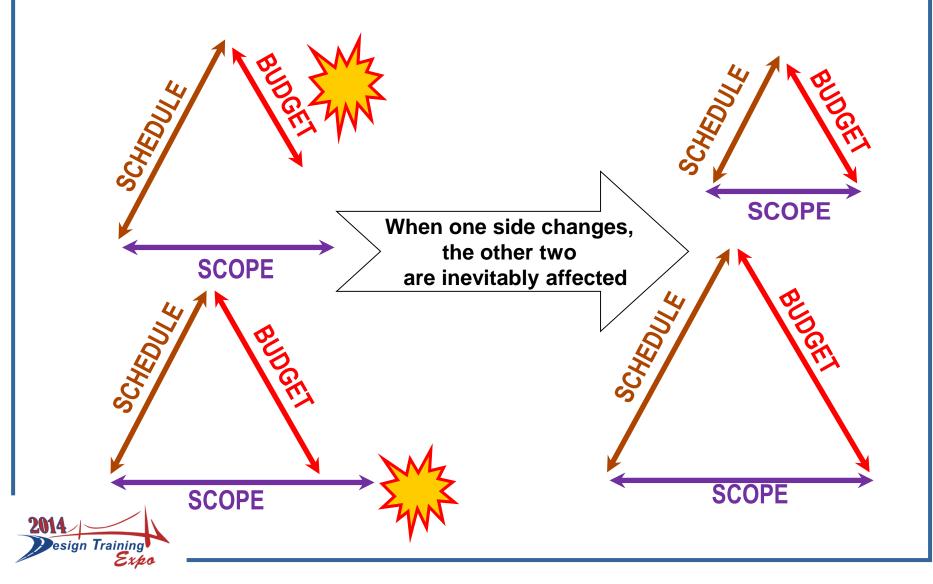
Scope Change

- ✓ Any change to the Project Scope.
- ✓ Almost always requires an adjustment to the project cost or schedule.
- ✓ Will require a Supplemental Agreement (SA)





Triple Constraints

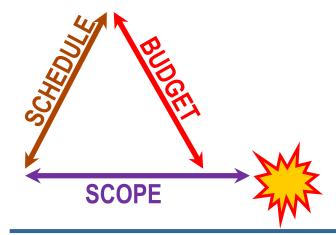


Scope Change

- Original Scope of Work
 - ✓ SR 10 (US 90) over Little River
 - ✓ Purpose and Need:
 - Purpose: Replace Bridge along SR 10 (US 90)
 Over Little River

 Need: Existing Bridge Structurally Deficient & Overtopping Occurring

SCOPE



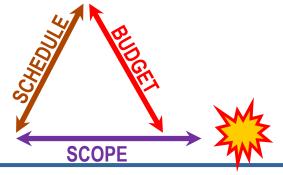


Scope Change

- Revised Scope of Work
 - ✓ SR 10 (US 90) over Little River and Hurricane Creek
 - ✓ Purpose and Need:
 - Purpose: Replace Bridge along SR 10 (US 90)
 Over Little River and Hurricane Creek Bridge
 Culvert
 - Need: Existing Bridge Structurally Deficient & Overtopping Occurring

SCOPE

& Geometric Constraints





Change Management

- Supplemental Agreements (SA) FDOT PM's Role
 - Coordination
 - ✓ Identify Necessary Changes (Scope of Services & Staff Hours)
 - Complete SA in Timely Manner
 - ✓ Adjust Project Schedule





Change Management

- Supplemental Agreements (SA) Consultant PM's Role
 - Coordination
 - ✓ Identify Necessary Changes (Scope of Services & Staff Hours)
 - Communication





Summary

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Questions...

Rob Quigley

Robert.Quigley@dot.state.fl.us

Mary Jane Hayden

<u>MaryJane.Hayden@dot.state.fl.us</u>

